

Comments on Group D Lab 2 Power experiment.

Structure

- Structure of your report is very clear with the table of contents.
- Conclusion is missing but maybe you were planning on adding it in the final paper.

Language

- Some spelling mistakes. (« POlar sateLlite for Auroral Research », « whilst », « the number of day », « the mission necessitate »...).
- Avoid formulations such as « can't » or « One can note » in a report.
- Some formulations could be improved : « A such power system is to be designed for the satellite that it is also able to function during eclipse. »

Despite these minor mistakes the language is good, easy to read and to understand.

Presentation

Great presentation of the report, very professional !

- References

The website is not written the same way as the other references (not the same police?). Is that a mistake ?

- Figures (on page 4 for instance)

Are you sure that it is possible to read the values on the axis once printed ? Figures seem too small on the computer.

On figure 17 the yellow color for the arrows is hard to see. Otherwise your figures are nice and colorful !

Be careful to put a space between values and units. Units should not be in italic (p10 for instance).

Content

- Introduction

Nice general introduction on the context of the lab. One point is nevertheless missing : « This report contains the results from the test performed on satellite power system components » ; what is that test ? We do not know nothing about the lab and it is hard to guess what is our task exactly and how you will perform it.

Same comment for the first sentence of the first part : « This section contains the experimental results from the test conducted on batteries and solar panel. » We still do not know what is that test.

- Equations

Be careful to explain your notations. For instance in equation 1, you do not say what are R , I and V . Of course we understand very well what it is, but that could depend on the reader. To add an equation to explain how did you get the alpha-factor will be great. It is a little hard to follow of the eclipse time calculation part.

- Figures

Comments on the figures would be welcome. You have commented most of them but on page 4 for instance you only comment figure 3 but we do not know what is learned from the others, especially with the fact that axis are hard to read.

Figure 5, 6 and 7 are helpful to visualize what you have done. You could maybe indicate what are the different elements showed in the pictures.

- Designing

Perhaps a little more about how did you designed the power system, just a little comments on the designing method like trials or iteration or some special equations are used. .

- Other small things

Do you have an explanation of why the Li-Ion battery is charged and discharged in this kind of way? If you do, it is good to add it to the rapport.

In the rapport, you mentioned that there is something wrong with the NiMH battery. Why is it wrong and do you have an explanation for it? It is kind of important theoretical principle to know why when the data is wrong.

A little more explanation about the error-checking method would be great.

I noticed that you have a reference to the 18th page on all pages' head. It feel a little weird to me.

Very nice background explanations in general (solar panels, batteries...). The summary tables are also a very good idea.

In general the report is very clear and very well written. The main improvements would be adding a conclusion, adding a part about the lab in the introduction and correcting the little mistakes.